



MHPS WINS BIG

Partners with TPL on Most Efficient Combined-Cycle Plant in Colombia

Termocandelaria Project Launch

Recently, MHPS announced the contract agreement with Termocandelaria Power Ltd. (TPL), which includes the purchase of a new MHPS steam turbine, upgrades to existing W501F gas turbines (GTs), replacement rotors and the commitment to a 15-year Long Term Service Agreement (LTSA).



The LTSA includes MHPS-TOMONI™ suite of Total Plant Solutions to further enhance the reliability, availability, and daily operations of the plant.

Using these tools to trend both gas and steam turbine operations, MHPS will be able to help prevent unplanned outages and make Termocandelaria the most efficient combined-cycle plant in Colombia.

Colombia's Electricity Market Driving Change

With Colombia's heavy dependence on hydro-electric power, severe droughts over past years coupled with significant growth in electricity demand has led to power sharing and forced rationing. As a result the Colombian government has actively encouraged further investment and development of non-hydroelectric generation to respond to this situation.

TPL is the largest provider of thermal power generated electricity in Colombia, positioning them as a key strategic partner to address these challenges. TPL's strategy is primarily designed to serve its customers with reliable, on-demand, cost-effective and sustainable electricity. To achieve this, the company's focus has been to expand its installed generation capacity and increase plant efficiencies.

The existing open-cycle Termocandelaria power plant provided the greatest opportunity to meet these objectives.

What Power Generation Services Must Deliver



MHPS will upgrade the plant's existing GTs by applying an F4 upgrade which consists of improved materials, coatings and cooling technologies, which will extend maintenance intervals. These type of upgrades are proven in the advanced-class J and G series turbines.

The first GT will be upgraded later this year and the second in 2021. In addition to the upgraded turbine parts, a new rotor for one GT and a refurbished rotor for the other will be utilized, extending the operating life for the gas turbines by another 100,000 hours.

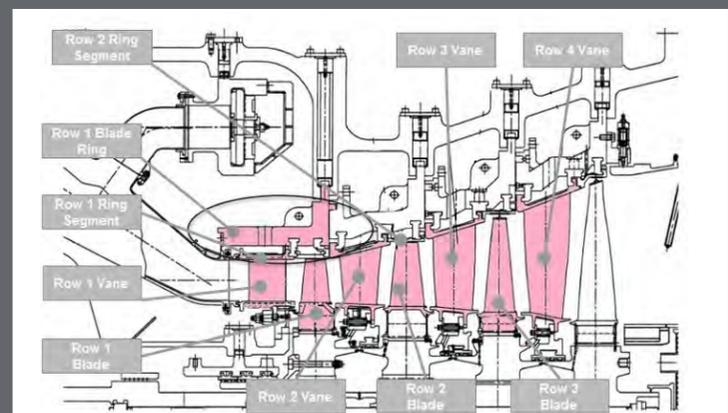
TPL and the EPC will install the new steam turbine and generator in 2021 when the combined cycle conversion is due to be complete. At that point, MHPS will perform a steam injection conversion to the GT combustion system, further enhancing plant efficiency and power output.

The TECHY Soundbite

Since 2011, MHPS has implemented more than 125 flexibility and performance improvement solutions in combined-cycle gas turbine (CCGT) plants.

This plant was originally constructed with 2 x W501F gas turbines operating in simple-cycle (SCGT) mode and TPL decided to convert the plant to a 2-on-1 CCGT facility, giving all their power plants an aggregate total installed capacity of 1,283MW - about 7.6% of the total capacity in Colombia.

The conversion to combined-cycle operation, coupled with the gas turbine upgrades, using MHPS optimized hardware and software solutions, will increase the plant's overall capacity from 324 to 566 MW, will lower fuel and maintenance costs, and increase plant flexibility.



Javier Ruiz, MHPS Regional Sales VP for the Andes, Caribbean, and Central America said, "We have been working closely with TPL over many years to effectively and reliably serve their customers. The need to reduce Colombia's dependence on hydroelectric supply created the opportunity to develop the combined-cycle conversion. These types of projects are complex to develop and execute. MHPS has worked closely with TPL to structure the project to minimize project risk and deliver the most efficient combined-cycle power plant in Colombia. TPL recognized the key benefits of incorporating the supply of the critical power train components from MHPS, around which the plant's operating cycle was designed."

Customer Journey

Marco Sanchez, VP of Intelligent Solutions said, "MHPS and TPL have built a strong business relationship dating back to 2006, when MHPS performed a dual-fuel conversion at this plant. The success with this project allowed MHPS to continue to grow its business relationship by installing turbine parts into the unit and obtain an exclusive LTMA contract that included parts, field service support and repairs. Because of the strong service relationship that had been built over the past thirteen years, MHPS was able to sole source the LTSA contract on the new combined cycle unit."

Change In Power

MHPS is changing the industry's perception that we are simply an OEM of power generation equipment. We are a full-service provider with extensive power engineering expertise and we can develop custom solutions to support customers' business strategy and objectives. By converting more Westinghouse GT LTSAs to MHPS, we are significantly strengthening MHPS presence and service capability - making us the business and industry thought leader in the LATAM region.

Our mission is to win, protect and grow the OEM Service business by moving from a traditional service provider to the leading provider of Total Plant Solutions across the Americas, providing both advanced technologies and world-class customer service.

As we now move into executing this complex project, we plan to share further updates and stories, to highlight how we, together, deliver to our customers. Thank you all for your outstanding contributions, enabling us to win this contract against fierce competition.